ABSTRACT

VIRTUAL MACHINE CONNECTION TO A TANGIBLE NETWORK

A method for communicating from a first virtual machine, defined by a virtual machine operating system, to an external device via a local area network (LAN). The virtual machine operating system also defines other virtual machines and a base portion common to all of the virtual machines. The first virtual machine writes an IP datagram to an output buffer allocated to the first virtual machine. The IP datagram comprises data and a destination IP address associated with the external device. The program functions in the base portion read the IP datagram from the output buffer to determine the destination IP address and then copy the IP datagram from the output buffer into storage allocated to the common base portion whereby the IP datagram passes from the first virtual machine into the common base portion storage without passing through any other virtual machines. Then, the program functions request a tangible adapter card for the network to send the IP datagram to the IP destination address. Likewise, the first virtual machine can receive an IP datagram from the external device. The program functions in the base portion read the IP datagram placed in the inbound buffer by the tangible adapter card sent from the external device. Then, the program functions in the base portion write the IP datagram to the input buffer allocated to the first virtual machine.

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